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ABSTRACT

This guide contains questions and answers about Section 508 of the Rehabilitation Act, as amended in 1986 by Public Law 99-506, which required the federal government to establish, in consultation with industry, guidelines to ensure that individuals with disabilities may use electronic office equipment with or without special peripherals. The guide explains how the federal government has changed its rules for purchasing or leasing information technology to comply with the law; examines the effect of Section 508 on states funded under Public Law 100-407, the Technology-Related Assistance for Individuals with Disabilities Act of 1988; explains how Section 508 is enforced; defines "electronic equipment accessibility"; outlines how the federal government decides what equipment to buy; notes equipment accommodations commonly used, such as alternative input, alternative screen display, alternatives to audible information, and development of local area networks; and offers sources for additional information. (JDD)

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SECTION 508: ITS EFFECT ON STATES FUNDED UNDER P.L. 100-407

Q & A

Questions and answers about Section 508 of the Rehabilitation Act, as amended in 1986, and the effect it will have on states funded under the Technology-Related Assistance for Individuals with Disabilities Act 0f 1988

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SECTION 508 AND ITS EFFECT ON STATES FUNDED UNDER P.L. 100-407

This publication contains questions and answers about Section 508 of the Rehabilitation Act, as amended in 1986 by P.L. 99-506, and the effect 508 will have on States funded under P.L. 100-407, the Technology-Related Assistance for Individuals With Disabilities Act of 1988. This document is prepared as an introduction to the issues involved in implementation of Section 508. This work was funded under a contract from the National Institute on Disability and Rehabilitation Research, Office of Special Education and Rehabilitative Services, United States Department of Education. The contents of this work do not necessarily reflect the views or opinions of the United States Department of Education or the National Institute on Disability and Rehabilitation Research.

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SECTION 508 AND ITS EFFECT ON STATES FUNDED UNDER P.L. 100-407

Q. What is Section 508?

A. Section 508 is an amendment to the Rehabilitation Act of 1973 adopted by Congress in 1986 (P.L.99-506).

It required the federal government to establish, in consultation with industry, guidelines to insure that individuals with disabilities "may use electronic office equipment with or without special peripherals." The guidelines apply to federal agencies as they acquire information technology and services. The needs of persons with disabilities for access to work-related and public information resources must be met in agency procurements.

Q. Why was Section 508 adopted?

A. Section 508 was adopted to promote equal access for people with disabilities to federal jobs, including public information services and electronic tools used in modern offices today.

Section 508 of P.L. 99-506 is one of a series of federal legislation adopted since 1973 which articulate and protect the civil rights of Americans with disabilities.

The federal government is the single largest purchaser of computers and other high tech office equipment. This law should stimulate development, manufacturing and marketing of equipment which can be used--or adapted for use--by people with disabilities.

Q. What has happened to date?

A. The federal government changed its rules for purchasing/leasing information technology. It developed general guidelines for functional performance specifications. The guidelines state that this functional performance can be accomplished by manufacturers building in alternative capabilities such as single keystroke commands or providing "hooks" for the addition of adaptive peripheral equipment such as a one-handed keyboard or a braille printer.

General Services Administration (GSA), the federal agency responsible for federal information resources management, procurements and policies, issued a regulation requiring that agencies determine the electronic equipment accessibility needs for persons with disabilities and include these requirements

in large procurements. The needs of persons with disabilities, together with other technological function specifications, comprise the performance specifications in procurement documents.
In addition, GSA has established on-going technical support capabilities at its Clearinghouse on Computer Accommodation, to ensure effective use of information technology by individuals with disabilities.

Industry is responding by enhancing their service and product capabilities through design changes in their own products and through partnerships with accommodation product vendors.

Q. <u>How is Section 508 related to other federal disability rights legislation?</u>

A. Federal agencies are also responding to new regulations to implement The Telecommunications Accessibility Enhancement Act (P.L. 100-542).

GSA and other federal officials consider a 1973 amendment to the Rehabilitation Act, Section 504, to be the foundation for Section 508 and the previously-mentioned "Access to Telecommunications" act which soon followed.

Section 504 prohibited discrimination, solely on the basis of "handicap", in any program receiving federal dollars. This prohibition against discrimination and requirement for reasonable accommodation extends to the private sector in the Americans With Disabilities Act (ADA), adopted in July, 1990. All of these laws require "reasonable accommodation" of people's disabilities, unless it would be an "undue burden". The terms "reasonable accommodation" and "undue burden" are not defined in the legislation. Examples, however, are given in regulations implementing Section 504. The access "functionality" required in GSA regulations for compliance with Section 508 is an integral aspect of Section 504, which preceded it by more than a decade. Examples of "reasonable accommodation" in Section 504 regulations include providing specialized equipment such as computers with synthesized voice or elevators to accommodate employees who use wheelchairs.

Q. <u>Do state governments have to comply with Section 508?</u>

A. States funded under Title I of P.L. 100-407, the Technology Related Assistance for Individuals With Disabilities Act of 1988, will be required to demonstrate that they are in compliance with Section 508 in the third year of their projects in order to be eligible to apply for an extension grant. States should acquire and provide electronic office equipment that can be readily accessed by employees who have disabilities and meet Department of Education/GSA guidelines. Some considerations in planning for accessibility are included in the section following the question "What are some ways to plan for accessibility?"

Q. How is Section 508 enforced?

A. GSA has oversight over large procurements by any federal agency. If an agency fails to meet the requirements of Section 508 in a procurement, GSA can reduce the level of buying autonomy that it had delegated to an agency found out of compliance.
For states funded under P.L. 100-407, enforcement will be part of a U.S. Department of Education on-site visit or peer review in the third year of a project, to be conducted to determine eligibility for an extension grant.

Q. Is there sample or "standard clause" language for use in writing specifications for federal procurement of office equipment?

A. One of GSA's offices, the Clearinghouse on Computer Accommodation, is collecting and distributing sample language from agency solicitation documents. This office is providing education and technical support services to federal agencies addressing accessibility requirements.

Q. What do the federal guidelines require?

A. The guidelines require that agencies perform a determination of need and requirements analysis for accessibility when planning information technology acquisitions.

The goal is to provide disabled and non-disabled users equivalent access to work-related and public information resources.

Q. How is "electronic equipment accessibility" defined?

A. "Electronic equipment accessibility" is defined as the application/configuration of electronic office equipment in a manner which accommodates the functional limitations of individuals with disabilities so as to promote productivity and provide access to public information resources.

The current federal guidelines specifically address microcomputer capabilities. This includes both the use of stand-alone microcomputer systems and the use of microcomputers (personal computers or "PCs") to access other computer systems, including mainframes or local area networks (LANs).

Q. How does the federal government decide what equipment to buy?

A. The federal agencies develop "functional performance" specifications to address their accessibility requirements. (See above section "What has happened to date?") There have been some mistaken assumptions that the federal government would develop two lists of electronic office equipment: one list of computers and other equipment that would be acceptable to purchase and a second list of equipment which Section 508 would prohibit it from acquiring.

This is not the case.

Rather than stipulate specific brands or types of equipment, GSA requires, instead, that specifications be written in a way that "functional performance" can be achieved. These require, for example, that there must be a way--or industry must be working on a way--that the computer or other equipment can be enhanced to permit the following:

- large print screen display
- Braille output
- synthesized speech output
- speech recognition
- alternative keyboard input
- audible display of screen prompts
- screen display of audible signals

GSA requires that the enhancement or adaptation--whether built in or added on--must provide "equivalent access" and that in order to be considered "equivalent" the access must be ready, easy, not cumbersome or unwieldy--if industry can provide it.

It is anticipated, by GSA, that these guidelines and all related activities will continue to evolve and improve in the years ahead as information processing technology advances and as the government gains additional experience in applying technology to meet the needs of individuals with disabilities.

Q. Must each individual piece of electronic office equipment be "accessible"?

A. No. GSA officials currently require that a piece of equipment either be accessible, as is, or constitute a flexible platform for adaptations, or include an accessible "gateway" for performance enhancing peripherals.

Q. Do current GSA guidelines cover electronic office equipment other than computers?

A. To date, no. GSA officials say that consumers involved in development of the original guidelines stated that their first priority was access to data processing equipment and to the information stored in computers. These original guidelines were written in the late 1980's as microcomputers were replacing typewriters on government workers' desks.

With the proliferation of "FAX" and sophisticated electronic copy machines, it is anticipated that other equipment may be covered as the Federal Acquisition Regulations (FAR) are updated.

Q. **What are ways to plan for accessibility?**

Some of the considerations in planning for optimum accessibility to electronic office equipment are whether the system will have, or can be modified to include, the following accommodations:

* ALTERNATIVE INPUT--Alternative keyboards, voice recognition, adapted switches, infrared light beams, single stroke keyboard commands, non-repeating keys, Morse code, braille or other input methods, tactile marking on keys, spoken feedback for keyboard.

* ALTERNATIVE SCREEN DISPLAY--large-print software, large monitors, refreshable braille, spoken review of display information, and tactile display of graphics.

* ALTERNATIVES TO AUDIBLE INFORMATION--error reports or other information provided in audible form can be presented on the screen visually; a computer and modem can provide text-based means of telecommunications

* DEVELOP LOCAL AREA NETWORKS (LANs)--which give employees options about types of computers and/or peripherals they may use to access files or other data.

Q. **Is there a solution for every access problem?**

A. Not yet. In fact, recent developments in electronic systems such as the increased use of graphics has created new challenges, especially for computer users who are visually impaired. The federal government has recognized the evolutionary nature of electronic office equipment and systems. Officials cite the steady advancements in technology as the reason for not prescribing specific procurement specification language or specific accessibility solutions. Sample language, however, now is being made available during training for procurement officers being offered by the federal Information Resource Management Service at the Clearinghouse on Computer Accommodation. It is anticipated that this training may be opened to procurement officials from states as "Tech Act" project staffs contemplate fourth and fifth year activities. Research with prototype speech and tactile access to graphic displays is being conducted at the Trace Research and Development Center at the University of Wisconsin and also at the Center for Access to Special Technology in Massachusetts. Telecommunications relay systems have been set up across the country for deaf, hearing-impaired and speech-impaired users. Augmentative communication devices are being interfaced with computers to facilitate access for workers who previously were under-employed or considered unemployable.

Q. **Where can I obtain additional information about complying with Section 508?**

A. The federal government handbook addressing Section 508 responsibility is *Managing End User Computing for Users With Disabilities*, published by the Clearinghouse on Computer Accommodation, Information Resources Management Service, General Services Administration. It is available from:

GSA Clearinghouse on Computer Accommodation
KGDO Room 2022
18th and F Street, N.W.
Washington, D.C. 20405
(202) 501-4906 V/TDD

The appendices in this handbook include copies of the various federal documents cited in this RESNA Technical Assistance Project information product.

- Federal Information Resource Management Regulation (FIRMR Amendment 14) implementing P.L. 99-506, Section 508 on Electronic Office Equipment Accessibility. This document and its companion bulletin 56 are the "GSA guidelines".
- FIRMR Bulletin 56
- FIRMR Bulletin 42 (describes services provided by GSA's Clearinghouse on Computer Accommodation)
- Assessment of Computer and Telecommunications Needs Checklists
- Government Sector Resources

Another good source of information on both Section 508 and on computer access for individuals with disabilities is *Computer Access in Higher Education for Students With Disabilities, Selection and Use of Adapted Computer Technology*, Second Edition, by Carl Brown and colleagues, High-Tech Center for the Disabled, California Community Colleges Chancellor's Office, 1109 Ninth Street, Sacramento, CA 95814, ph.(408) 996-4636.

A review of GSA's progress in enforcing Section 508, "Acquisition Prodded to Provide Computers for Handicapped Staff", was published in *Federal Computer World*, November 5, 1990, page 14.